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## Agent, Steward, and Dividend Policy

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Submitted 15/03/19, 1st revision 27/04/19, 2nd revision 17/05/19, accepted 11/6/19

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**Abstract:**

**Purpose:** The main objective of this study is to examine whether the dividend policy of Indonesian firms is based on agency theory or stewardship theory. The study investigates the relationship between profitability, non-discretionary accruals, discretionary accruals and dividend policy.

**Design/Methodology/Approach:** The final sample of this study is a total of 28 firms of consumers' goods industries listed in Indonesia Stock Exchange during the period of 2010 to 2017 and conducts logistic regression for hypotheses testing.

**Findings:** The result of the first model shows that ROA and non-discretionary accruals (non-disc) have positive sign and they are significant on dividend policy. The second model shows that ROA has a positive and significant effect on dividend policy, while non-disc is insignificant on dividend policy. The third model shows that ROA and non-disc are consistently positive and significant, while discretionary accruals are consistently insignificant on dividend policy. The fourth model shows that ROA and non-disc have positive sign and significant on dividend policy, while disc is insignificant on dividend policy. The fifth model shows that ROA and non-disc have a positive and significant sign on dividend policy, while DAR, AG and disc are insignificant on dividend policy. The results of profitability on all models also indicate that the objective of managers for most Indonesian dividend payers are align with the objective of stockholders in context of stewardship. The findings imply that most of firms as payers tend to increase dividends when their profitability increases.

**Practical Implications:** It appears that dividend payers with strong profitability as based on their policy, generally do not engage in managing its earnings while reporting the accounting information.

**Originality/Value:** The study provides empirical evidence for dividend policy in context of agency and stewardship perspectives. This study also identifies the behavior of firm insiders whether play as an agent or steward in relationship with their principals.

**Keywords:** Dividend policy, stewardship, agency, earnings management, good corporate governance, non-discretionary, discretionary.

**JEL codes:** G35, G41, M41.

**Paper Type:** Research article.

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## **1. Introduction**

The study starts from the general assumption that managers manage the firms in terms to create earnings for stockholders. The earnings themselves ideally should be allocated for any additional investments, dividends, or both. Formally, the earnings are a result of accounting information and managers have the control to take policies in recording the transactions based on normal or abnormal accruals. More specifically, the implications of manager's policies on stockholders by controlling accounting information are to increase or decrease the dividends. Under this assumption, this study sets the issue on the relationship between principals and agent in the context of dividend policy to examine whether managers play a role as agent or steward in determining dividends for principals or stockholders.

There are two kinds of managers who play the role behind dividend policy. First is a perfect agent which plays as steward, and second is an imperfect agent which plays as agent on his/her own interest (Easterbrook, 1984). Some articles such as Easterbrook (1984), DeAngelo and DeAngelo (1990), Crutchley *et al.* (1999), La Porta *et al.* (2000), Myers (2001), Chetty and Saez (2010), and Kuan *et al.* (2012) suggest that the basic problem in dividend policy is mostly determined by agency conflict. This conflict arises when managers tend to consume the free cash for their own benefit through their own discretion rather than to increase the firm value or to maximize the wealth of stockholders (Jensen and Meckling, 1976; Jensen, 1986; Jensen, 1988; Aivazian *et al.*, 2005).

The findings of Jensen and Meckling (1976), and Jensen (1986) on manager opportunistic behavior implies that managers tend to apply abnormal accruals or earnings management specifically on dividend policy. But, the explanation about dividend policy is not only in a point of view of agency conflict. Although articles are very rare, but such studies as of Donaldson and Davis (1991), Davis *et al.* (1997), Dewenter and Warther (1998), Daniel *et al.* (2008) prove that managers tend to run the firms at good governance and serve the stockholders in a way to maximize their wealth. Donaldson and Davis (1991) refer to this un-opportunistic behavior of managers as stewardship theory.

The objective of this study provides empirical evidence on the topic of dividend policy in the context of stewardship theory and agency problem for the case of Indonesian firms especially the firms in the consumer goods industry sector as this sector has a significant index in the Indonesian capital market. This study finds that return on assets and non-discretionary accruals (normal accruals) have a positive and significant effect on dividend policy. This study also finds that debt, assets growth, and discretionary accruals (abnormal accruals) are insignificant to affect dividend policy of Indonesian dividend payers. On these findings, this study implies that dividend policy of Indonesian firms as dividend payers are most determined by profitability. Moreover, the most important implication is the fact that Indonesian

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dividend payers have tendency not practicing earnings management on determining dividend policy while the insiders behave as steward.

## 2. Literature Review

### 2.1 Dividend Policy and Stewardship Theory

Many studies such as Yi *et al.* (2007), Hanlon and Hoopes (2014), Ozuomba *et al.* (2016), Farrukh *et al.* (2017) show that dividend is the main point to increase the wealth of stockholders of public firms. In the objective to increase the wealth of stockholders the firm insiders should increase the firm performance specifically for profitability to meet the optimum dividend policy (Arosa *et al.*, 2010). The findings of Fama and French (2001), Grullon *et al.* (2002), DeAngelo *et al.* (2006), Denis and Osobov (2008), Li and Zhao (2008), Fairchild *et al.* (2014), Mahdzan *et al.* (2016), and Kumar and Sujit (2018) show that most of profitable firms normally distribute more dividends to their stockholders. Those findings imply that ideally more profitable firms should pay higher dividends to increase the wealth of their stockholders. The pioneer works of Donaldson and Davis (1991) and Davis *et al.* (1997) about stewardship theory suggest that if the managers act not under opportunistic behavior and trustworthy then the desire of stockholders as principals can be fulfilled. The stewardship theory of Donaldson and Davis (1991) and Davis *et al.* (1997) gives implication that managers as insiders tend to apply better management including the use of normal accruals in their objective to distribute optimum dividends to stockholders.

There are some studies which provide evidence closely supporting the stewardship theory. The study of Dewenter and Warther (1998) on 420 U.S and 194 Japanese firms during the period of 1982 until 1993 provides evidence that the agency conflict in most of Japanese firms especially for keiretsu-member firms has insignificant effect on their dividend policy. While for the U.S firms, the finding of Dewenter and Warther (1998) show that dividend policy normally used as a disciplinary mechanism on their managers as agents. Similarly, Kato *et al.* (2002) found that Japanese firms tend to support the cash flow information hypothesis which implies that these firms do not use dividend policy to solve the agency conflict especially in case of overinvestment problem. Lara *et al.* (2005) convince that managers who keep earnings conservatism usually record non-discretionary accruals to keep accounting information reliable. Additionally, Lara *et al.* (2005) convince that managers who record discretionary accruals normally avoid the conservatism principle. The evidence of Daniel *et al.* (2008) shows that firms which normally pay dividends tend to manage their earnings upward to keep the dividend threshold for stockholders. The recent study of He *et al.* (2017) show the evidence that firms as dividend payers have a tendency for less earnings' manipulation and use dividend to mitigate the agency conflict. Chansarn and Chansarn (2016) provide evidence that discretionary accruals or earnings management has negative relationship with dividend policy. This study assumes that if the definition of manager's discretion on

free cash by Jensen (1986) can be measured with abnormal accruals or discretionary accruals by the model of Jones (1991) and the rest is normal accruals or non-discretionary accruals then under the assumption of stewardship theory where managers works in-line with the objectives of stockholders, this study posit:

*H1 : Higher profitability gives higher dividend.*

*H2 : Higher non-discretionary accruals gives higher dividend.*

*H3 : Higher discretionary accruals gives lower dividend.*

## **2.2 Control Variables**

To confirm the existence of agency conflict, this study uses debt as control variable. Thakor and Wilson (1995), Neale *et al.* (1998), Aivazian *et al.* (2005), and Brav *et al.* (2005) confirm that firms which obtain more debt for financing shall control the spending behaviors of managers. In addition, the studies of Easterbrook (1984), Jensen (1986), and Brav *et al.* (2005) suggest that stockholders should ask more dividends while firms obtain more debt for financing. But, Fairchild *et al.* (2014) confirm that the consequence of higher debt shall decrease distribution of dividends. Sunder and Myers (1999), Grullon *et al.* (2002), and Strebulaev and Yang (2013) suggest that to distribute more dividends then firms should decrease their usage of debt.

The other control variable on dividend policy of this study is assets' growth. Jensen (1988) assumes that the moral hazard of managers is coming up in conditions where firms have large free cash which is available to expand in more profitable investments. Fairchild *et al.* (2014) suggest that to mitigate the internal conflict then dividend increases normally have negative relationship with growth opportunities. Fama and French (2001) confirm that firms with more investment opportunities are less likely to pay dividend. The recent studies of Chemmanur *et al.* (2010), and Yahya and Ghazali (2017) provide evidence that firms with more growth opportunities have the tendency to cut dividends. Therefore other hypotheses are:

*H4 : The higher debt gives higher dividend.*

*H5 : Higher assets growth gives lower dividend.*

## **3. Research Methodology**

### **3.1 Sample**

This study takes the data from Indonesia Stock Exchange ([www.idx.co.id](http://www.idx.co.id)) for the period of 2010 until 2017. The final sample of this study consists of 28 listed firms from the consumers' goods industry. The study excludes the firms with dis-list status, new listing status, and not publicly published the audit report. This study conducts logistic regression with basic model as follow:

$$\text{DIV} = \alpha + \beta\text{ROA} + \beta\text{DAR} + \beta\text{AG} + \beta\text{N.Disc} + \beta\text{Disc} + \varepsilon \quad (1)$$

### 3.2 Definition of Variables

Dependent variable of this study is the dividend policy, where dividend payers is 1 and 0 the opposite. To be included as dividend payers firms should pay dividend more than 0 (in average) along the observed period. The independent variables are the return on assets (ROA) as the ratio of net income over total assets, the debt ratio (DAR) as the ratio of total debt over total assets and the assets' growth (AG) as the growth in total assets. The study uses the model of Jones (1991) to measure variables of non-discretionary accruals (N.Disc) and discretionary accruals (Disc) with the following procedures. First, the study calculates the total accruals ( $\text{TA}_{it}$ ) with the model in equation 2:

$$\text{TA}_t = (\Delta\text{CA}_t - \Delta\text{Cash}_t) - (\Delta\text{CL}_t - \text{Dep\&Amort.Exp}_t) \quad (2)$$

$\text{TA}_{it}$  is total accruals in year  $t$  for firm  $i$  and this study excludes tax payables and part of long-term debt from current liabilities to calculate total accruals as suggested by Jones (1991);  $\Delta\text{CA}$  is the difference of current assets in year  $t$  and year  $t-1$ ;  $\Delta\text{Cash}$  is the difference of cash in year  $t$  and year  $t-1$ ;  $\Delta\text{CL}$  is the difference of current liabilities in year  $t$  and year  $t-1$ ; and  $\text{Dep\&Amort.Exp}_t$  is the depreciation plus amortization expenses for year  $t$ . Second, the study estimates the normal and abnormal of earnings management with the model in equation 3:

$$\text{TA}_{it}/\text{A}_{it-1} = \alpha_i(1/\text{A}_{it-1}) + \beta_i(\Delta\text{REV}_{it}/\text{A}_{it-1}) + \beta_i(\Delta\text{PPE}_{it}/\text{A}_{it-1}) + \varepsilon_{it} \quad (3)$$

$\text{TA}_{it}$  is total accruals in year  $t$  for firm  $i$ ;  $\Delta\text{REV}_{it}$  is the revenue difference of year  $t$  and year  $t-1$ ;  $\text{PPE}_{it}$  is the difference of acquisition cost of property, plant, and equipment of year  $t$  and year  $t-1$ ;  $\text{A}_{it-1}$  is the total assets in year  $t-1$  for firm  $i$ ; and  $\varepsilon_{it}$  is the residual error. This study uses  $\varepsilon_{it}$  as abnormal accruals or discretionary accruals (Disc) and measures it by standardized residuals error estimate of regression of each firm while normal accruals or non-discretionary accruals (N.Disc) is the sum of  $\alpha_i(1/\text{A}_{it-1}) + \beta_i(\Delta\text{REV}_{it}/\text{A}_{it-1}) + \beta_i(\Delta\text{PPE}_{it}/\text{A}_{it-1})$  of each firm.

## 4. Results and Discussion

### 4.1 Descriptive Statistics

Table 1 reports that the difference of ROA between payers and non-payers are significant where payers have higher ROA. This result means that firms as dividend payers have better profitability than firms as non-dividend payers. Although the results of other variables such as DAR, AG, N.Disc, and Disc show insignificant differences but the results show that firms as dividend payers have more growth opportunities, less debt, and higher non-discretionary accruals. Table 1 also reports that the mean of Disc for both payers and non-payers have zero value and

insignificant difference which means that these firms have less abnormal accruals or earnings management.

**Table 1.** Descriptive Statistics between Payers and Non-payers

Variables	Payers			Non-payers			Difference
	Min	Max	Mean	Min	Max	Mean	
ROA	-0.21	0.67	0.14	-0.04	0.21	0.05	0.09***
DAR	0.09	1.97	0.41	0.23	0.69	0.45	-0.04
AG	-0.76	5.07	0.17	-0.07	0.82	0.13	0.04
N.Disc	-2.74	1.48	-0.17	-2.40	0.91	-0.33	0.16
Disc	-1.73	1.63	0.00	-1.20	1.36	0.00	0.00

*Notes:* This table reports descriptive statistics between payers and non-payers. Return on assets (ROA) is ratio of net income over total assets; debt ratio (DAR) is ratio of total debt over total assets; assets growth (AG) is growth in total assets; discretionary accruals (Disc) is standardized residuals error estimate of regression; and non-discretionary accruals (N.Disc) is sum of  $\alpha_i(1/A_{it-1}) + \beta_i(\Delta REV_{it}/A_{it-1}) + \beta_i(\Delta PPE_{it}/A_{it-1})$ . \*\*\*, \*\*, and \* indicate statistical significance at 0.01, 0.05, and 0.10, respectively.

## 4.2 Discussion

### Model 1:

Table 2 shows that ROA has a positive significant sign on dividend policy. On this result, this study accepts H1. The findings are consistent with the findings of Fama and French (2001), Grullon *et al.* (2002), DeAngelo *et al.* (2006), Denis and Osobov (2008), Li and Zhao (2008), Fairchild *et al.* (2014), Mahdzan *et al.* (2016), and Kumar and Sujit (2018). The findings imply that most of firms as payers tend to increase dividend when their profitability increases. The results of profitability on all models also indicate that the objective of managers of most of Indonesian dividend payers are align with the objective of stockholders in context of stewardship as suggested by Donaldson and Davis (1991) and Davis *et al.* (1997). This study also accepts H2 since Table 2 also shows that non-discretionary (N.Disc) has positive significant sign on dividend policy. Notice the work of Lara *et al.* (2005), Dewenter and Warther (1998), Kato *et al.* (2002), Daniel *et al.* (2008) and He *et al.* (2017) then this study convinces that N.Disc somehow relates to managers behavior to record transactions according to legal standard of accounting, thus, it has tendency for less earnings manipulation. The result of N.Disc on this model also confirm the result of ROA which indicates that most of the managers of Indonesian dividend payers tend to behave as steward to their principal stockholders.

### Model 2:

Table 2 shows that the result of ROA is positive and significant on dividend policy. The result of Disc shows that discretionary accruals is insignificant on dividend policy which makes this study rejecting H3. Although the negative sign of Disc is consistent with earnings management literatures such as Chansarn and Chansarn (2016), the result implies that earnings management does not affect dividend policy in the context of Indonesian firms. Similar to Model 1, this study assumes that

managers do not play their role as agents which implies agency conflict is not a base for dividend policy in the context of Indonesian firms. Table 2 also shows that the pseudo R-square has dropped from 0.193 to 0.174 after Disc variable entered the Model.

**Table 2.** *The logistic regression of dividend policy*

Independent variables	Model				
	1	2	3	4	5
Intercept	0.592	0.492	0.592	0.421	0.419
ROA	9.924***	9.669***	9.930***	10.291***	10.049***
DAR				0.353	0.146
AG					0.978
N.Disc	0.463*		0.463*	0.474*	0.625**
Disc		-0.023	-0.023	-0.028	-0.019
Chi-square	202.970	206.077	202.961	202.861	200.824
Pseudo R-Square	0.193	0.174	0.193	0.193	0.206

*Notes:* This table reports the logistic regression of dividend policy. Dependent variable is dividend policy, where dividend payers is 1 and 0 for vice versa. The reference category is firms as non-payers. Return on assets (ROA) is ratio of net income over total assets; debt ratio (DAR) is ratio of total debt over total assets; assets growth (AG) is growth in total assets; discretionary accruals (Disc) is standardized residuals error estimate of regression; and non-discretionary accruals (N.Disc) is sum of  $\alpha_i(1/A_{it-1}) + \beta_i(\Delta REV_{it}/A_{it-1}) + \beta_i(\Delta PPE_{it}/A_{it-1})$ . \*\*\*, \*\*, and \* indicate statistical significance at 0.01, 0.05, and 0.10, respectively.

#### Model 3:

Table 2 shows that the signs of ROA and N.Disc are consistently positive and significant, while Disc is consistently insignificant on dividend policy. These results confirm the results from Model 1 and 2 which indicate that dividend payment is determined by profitability under the condition that managers act in-line with the objectives of their stockholders. Moreover, the pseudo R-square is better than in Model 2 after N.Disc and Disc enter together with profitability.

#### Model 4:

Table 2 confirms that the presence of DAR does not change the result for ROA and N.Disc. Both of these variables consistently have positive sign and are significant on dividend policy. The result of analysis also confirms that Disc is also consistently insignificant on dividend policy. Furthermore, the result also shows that DAR has an insignificant effect on dividend policy in case of agency conflict as suggested by Easterbrook (1984), Jensen (1986) and Brav *et al.* (2005) although the sign of DAR seems to support the possibility of agency conflict. On this result, the study rejects H4. Although the result of DAR shows insignificant effect, but its result provide small evidence that Indonesian firms as dividend payers will not decrease their dividend payment as they obtain more debts into capital structure. On this result, the finding for DAR of this study is inconsistent with the works of Sunder and Myers (1999), Grullon *et al.* (2002), Strebulaev and Yang (2013), and Fairchild *et al.*

(2014) who suggest that in order to decrease debt capacity is required to increase dividend payment. Table 2 also shows that the presence of DAR into the Model does not change the pseudo R-square since its value (0.193) is consistent with Model 3.

*Model 5:*

Table 2 shows that the signs of ROA, DAR, N.Disc, and Disc are constant after AG enter into the model. The results also show that N.Disc is getting significant on dividend policy which convinces that the management of Indonesian dividend payers is in-line with stewardship theory. Although the sign is positive, but the result of AG provides evidence that assets growth does not affect dividend policy significantly and this study rejects H5. This finding implies that additional profitable investment activities are not triggered by moral hazard of managers as suggested by Jensen (1988). Although the result of AG is insignificant, this study provides small evidence that to increase assets growth for Indonesian firms does not require dividend reduction as suggested by Fama and French (2001), Chemmanur *et al.* (2010), Fairchild *et al.* (2014) and Yahya and Ghazali (2017). Moreover, the pseudo R-square shows a better value (0.206) rather than in the previous Models after the presence of AG.

### 4.3 Robustness Test

Table 3 presents the robustness test where business risk (BR) is used in this study to test the Models. The study measures BR as the standard deviation of ROA. The results on all Models show that ROA and N.Disc have consistent signs and are still significant on dividend policy after BR enters the Models as an additional independent variable. Based on these results, the study confirms that all models are robust and at once proves that profitability is a main determinant of dividend policy under circumstances that managers act as a perfect agent for their stockholders.

**Table 3.** Robustness test on Models of Dividend Policy

Independent variables	Model				
	1	2	3	4	5
Intercept	-0.818	-0.938	-0.818	-0.619	-0.545
ROA	12.554***	12.542***	12.560***	12.005***	11.349***
DAR				-0.417	-0.666
AG					0.832
N.Disc	0.486*		0.486*	0.477*	0.534*
Disc		-0.028	-0.028	-0.021	-0.008
BR	33.458***	33.746***	33.465***	33.716***	32.721***
Chi-square	182.308	185.422	182.296	182.185	181.651
Pseudo R-Square	0.312	0.295	0.312	0.313	0.316

*Notes:* This table reports the logistic regression of dividend policy as a robustness test. The dependent variable is dividend policy, where dividend payers are 1 and 0 for vice versa. The reference category is firms as non-payers. Return on assets (ROA) is the ratio of net income over total assets; debt ratio (DAR) is the ratio of total debt over total assets; assets growth (AG) is growth in total assets; discretionary accruals (Disc) is standardized residuals error



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*estimate of regression; non-discretionary accruals (N.Disc) is sum of  $\alpha_i(1/A_{it-1}) + \beta_i(\Delta REV_{it}/A_{it-1}) + \beta_i(\Delta PPE_{it}/A_{it-1})$ ; and BR is business risk measured by standard deviation of return on assets. \*\*\*, \*\*, and \* indicate statistical significance at 0.01, 0.05, and 0.10, respectively.*

## 5. Conclusion

Earnings is a result of accounting information which ideally is used for additional investments, to distribute as dividend, or both. In the context of dividend policy, the power of insiders to control accounting information in determining the earnings of the firms in order to give an impact to increase or to decrease dividend distribution on stockholders. These possibilities will depend on insiders whether to play as agent or steward policy in relationship with stockholders as their principals.

The study finds that return on assets and non-discretionary accruals (normal accruals) have positive and significant effect on dividend policy. These findings imply that profitability is the main determinant on dividend policy of Indonesian firms as dividend payers. Also, the findings imply that Indonesian dividend payers do not practice earnings management to determine dividend policy as the insiders do not have moral hazard to establish corporate management.

The study limits the sample on listed firms in the consumers' goods industry sector as this sector has significant index in Indonesian capital market. As for the study limitations, we refer to the fact that is only for one sector with 28 firms during the period of 2010 to 2017 a total of 224 observations. Moreover, this study limits the method to detect earnings management based on Jones's model and the perspectives in context of agency theory and stewardship theory to examine dividend policy specifically in the context of Indonesian firms.

Because on the above limitations, the study suggests the followings:

- further studies to extend the scope in the context of international markets or other markets of developing countries;
- further studies in the context of Indonesian firms for other sectors;
- further studies should extend the total observation data set;
- further studies should expand the method in detecting earnings management besides the methodology of this study;
- further studies should extend the perspectives besides agency theory and stewardship theory, such as catering theory and life-cycle theory;
- further studies should add more variables to examine agency theory and stewardship theory;
- since the robustness test of this study shows that business risk is significant then further studies need to test this variable on relevant theories or use other measurement of risks.

## References:

- Aivazian, V.A., Ge, Y. & Qiu, J. 2005. The impact of leverage on firm investment : Canadian evidence. *Journal of Corporate Finance*, 11(1-2), 277-291, [https://doi.org/10.1016/S0929-1199\(03\)00062-2](https://doi.org/10.1016/S0929-1199(03)00062-2).
- Arosa, B., Iturralde, T. & Maseda, A. 2010. Outsiders on the board of directors and firm performance: Evidence from Spanish non-listed family firms. *Journal of Family Business Strategy*, 1(4), 236-245, <https://doi.org/10.1016/j.jfbs.2010.10.004>.
- Brav, A., Graham, J.R., Harvey, C.R. & Michaely, R. 2005. Payout policy in the 21<sup>st</sup> century. *Journal of Financial Economics*, 77, 483-527, <https://doi.org/10.1016/j.jfineco.2004.07.004>.
- Chansarn, S. & Chansarn, T. 2016. Earnings management and dividend policy of small and medium enterprises in Thailand. *International Journal of Business and Society*, 17(2), 307-328, <http://www.ijbs.unimas.my>.
- Chemmanur, T.J., He, J., Hu, G. & Liu, H. 2010. Is Dividend Smoothing Universal? New Insights from a Comparative Study of Dividend Policies in Hong Kong & the U.S. *Journal of Corporate Finance*, 16(4), 413-430, <https://doi.org/10.1016/j.jcorpfin.2010.03.001>.
- Chetty, R. & Saez, E. 2010. Dividend & corporate taxation in an agency model of the firm. *American Economic Journal: Economic Policy*, 2(3), 1-31, <https://doi.org/10.1257/pol.2.3.1>.
- Crutchley, C.E., Jensen, M.R.H., Jahera Jr.J.S. & Raymond, J.E. 1999. Agency problems and the simultaneity of financial decision making: The role of institutional ownership. *International Review of Financial Analysis*, 8(2), 177-197, [https://doi.org/10.1016/S1057-5219\(99\)00011-3](https://doi.org/10.1016/S1057-5219(99)00011-3).
- Daniel, N.D., Denis, D.J., Naveen, L. 2008. Do firms manage earnings to meet dividend thresholds? *Journal of Accounting and Economics*, 45(1), 2-26, <https://doi.org/10.1016/j.jacceco.2007.11.002>.
- Davis, J.H., Schoorman, F.D. & Donaldson, L. 1997. Toward a stewardship theory of management. *The Academy of Management Review*, 22(1), 20-47. <https://doi.org/10.2307/259223>.
- DeAngelo, H., DeAngelo, L. & Stulz, R.M. 2006. Dividend policy and the earned/contributed capital mix: A test of the life-cycle theory. *Journal of Financial Economics*, 81(2), 227-254, <https://doi.org/10.1016/j.jfineco.2005.07.005>.
- DeAngelo, H. & DeAngelo, L. 1990. Dividend policy and financial distress: An empirical investigation of troubled NYSE firms. *The Journal of Finance*, 45(5), 1415-1431, <https://doi.org/10.2307/2328743>.
- Denis, D.J. & Osobov, I. 2008. Why do firms pay dividends? International evidence on the determinants of dividend policy. *Journal of Financial Economics*, 89(1), 62-82, <https://doi.org/10.1016/j.jfineco.2007.06.006>.
- Dewenter, K.L. & Warther, V.A. 1998. Dividends, asymmetric information, and agency conflicts: Evidence from a comparison of the dividend policies of Japanese and U.S. firms. *The Journal of Finance*, 53(3), 879-904, <https://www.jstor.org/stable/117381>.
- Donaldson, L. & Davis, J.H. 1991. Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16(1), 49-65, <https://doi.org/10.1177/031289629101600103>.
- Easterbrook, F.H. 1984. Two agency-cost explanations of dividends. *The American Economic Review*, 74(4), 650-659, <http://www.jstor.org/stable/1805130>.

- Fairchild, R., Guney, Y. & Thanatawee, Y. 2014. Corporate dividend policy in Thailand: Theory and evidence. *International Review of Financial Analysis*, 31, 129-151, <https://doi.org/10.1016/j.irfa.2013.10.006>.
- Fama, E.F. & French, K.R. 2001. Disappearing dividends: changing firm characteristics or lower propensity to pay? *Journal of Financial Economics*, 60(1), 3-43, [https://doi.org/10.1016/S0304-405X\(01\)00038-1](https://doi.org/10.1016/S0304-405X(01)00038-1).
- Farrukh, K., Irshad, S., Khakwani, M.S., Ishaque, S. & Ansari, N. 2017. Impact of dividend policy on shareholders wealth and firm performance in Pakistan. *Cogent Business & Management*, 4, 1-11, <https://doi.org/10.1080/23311975.2017.1408208>.
- Grullon, G., Michaely, R. & Swaminathan, B. 2002. Are dividend changes a sign of firm maturity? *The Journal of Business*, 75(3), 387-424, <http://dx.doi.org/10.1086/339889>.
- Hanlon, M. & Hoopes, J.L. 2014. What do firms do when dividend tax rates change? An examination of alternative payout responses. *Journal of Financial Economics*, 114(1), 105-124, <https://doi.org/10.1016/j.jfineco.2014.06.004>.
- He, W., Ng, L., Zaiats, N. & Zhang, B. 2017. Dividend policy and earnings management across countries. *Journal of Corporate Finance*, 42, 267-286, <http://dx.doi.org/10.1016/j.jcorpfin.2016.11.014>.
- Jensen, M.C. 1988. Takeovers: Their causes and consequences. *The Journal of Economic Perspectives*, 2(1), 21-48, <http://www.jstor.org/stable/1942738>.
- Jensen, M.C. 1986. Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76(2), 323-329, <http://www.jstor.org/stable/1818789>.
- Jensen, M.C. & Meckling, W.H. 1976. Theory of the firm : Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360, [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X).
- Jones, J.J. 1991. Earnings management during import relief investigations. *Journal of Accounting Research*, 29(2), 193-228, <https://doi.org/10.2307/2491047>.
- Kato, H.K., Loewenstein, U., Tsay, W. 2002. Dividend policy, cash flow, and investment in Japan. *Pacific-Basin Finance Journal*, 10(4), 443-473, [https://doi.org/10.1016/S0927-538X\(02\)00068-9](https://doi.org/10.1016/S0927-538X(02)00068-9).
- Kuan, T.H., Li, C.S. & Liu, C.C. 2012. Corporate governance and cash holdings: A quantile regression approach. *International Review of Economics and Finance*, 24, 303-314, <https://doi.org/10.1016/j.iref.2012.04.006>.
- Kumar, B.R. & Sujit, K.S. 2018. Determinants of dividends among Indian firms-An empirical study. *Cogent Economics and Finance*, 6, 1-18, <https://doi.org/10.1080/23322039.2018.1423895>.
- Lara, J.M.G., Osmá, B.G. & Mora, A. 2005. The effect of earnings management on the asymmetric timeliness of earnings. *Journal of Business Finance & Accounting*, 32, 691-726, <https://doi.org/10.1111/j.0306-686X.2005.00610.x>.
- La Porta, R., De Silanes, F.L., Shleifer, A. & Vishny, R.W. 2000. Agency problems and dividend policies around the world. *The Journal of Finance*, 55(1), 1-33, <https://doi.org/10.1111/0022-1082.00199>.
- Li, K. & Zhao, X. 2008. Asymmetric information and dividend policy. *Financial Management*, 37(4), 673-694, <https://doi.org/10.1111/j.1755-053X.2008.00030.x>.
- Mahdzan, N.S., Zainudin, R. & Shahri, N.K. 2016. Interindustry dividend policy determinants in the context of an emerging market. *Economic Research-Ekonomiska Istraživanja*, 29(1), 250-262, <http://dx.doi.org/10.1080/1331677X.2016.1169704>.
- Myers, S.C. 2001. Capital structure. *The Journal of Economic Perspectives*, 15(2), 81-102, <http://www.jstor.org/stable/2696593>.

- Neale, B., Milsom, T., Hills, C. & Sharples, J. 1998. The hostile takeover process : a case study of Granada versus Forte. *European Management Journal*, 16(2), 230-241, [https://doi.org/10.1016/S0263-2373\(97\)00091-1](https://doi.org/10.1016/S0263-2373(97)00091-1).
- Ozuomba, C.N., Anichebe, A.S. & Okoye, P.V.C. 2016. The effect of dividend policies on wealth maximization: A study of some selected plcs. *Cogent Business & Management*, 3, 1-15, <http://dx.doi.org/10.1080/23311975.2016.1226457>.
- Strebulaev, I.A. & Yang, B. 2013. The mystery of zero-leverage firms. *Journal of Financial Economics*, 109(1), 1-23, <https://doi.org/10.1016/j.jfineco.2013.02.001>.
- Sunder, L.S. & Myers, S.C. 1999. Testing static tradeoff against pecking order models of capital structure. *Journal of Financial Economics*, 51(2), 219-244, [https://doi.org/10.1016/S0304-405X\(98\)00051-8](https://doi.org/10.1016/S0304-405X(98)00051-8).
- Thakor, A.V. & Wilson, P.F. 1995. Capital requirements, loan renegotiation and the borrower's choice of financing source. *Journal of Banking and Finance*, 19(3-4), 693-711, [https://doi.org/10.1016/0378-4266\(94\)00149-W](https://doi.org/10.1016/0378-4266(94)00149-W).
- Yahya, F. & Ghazali, Z.B. 2017. Effectiveness of board governance and dividend policy as alignment mechanisms to firm performance and CEO compensation. *Cogent Business & Management*, 4, 1-20, <https://doi.org/10.1080/23311975.2017.1398124>.
- Yi, Y., Ke, D. & Zhang, X. 2007. Shareholder wealth effect of dividend policy: Empirical evidence from the Chinese securities market. *Frontiers of Business Research in China*, 1(3), 437-455, <https://doi.org/10.1007/s11782-007-0026-8>.